

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
YELLOWSTONE PARK, WYO.

OF THE SUPERINTENDENT

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MONTHLY REPORT

for

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MONTHLY REPORT

1920.

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Notes of Painter, Hotel architect, Plumber, Lineman, Electrician,
and Park Naturalist, attached.

Mr. Linsley
Copy

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

OFFICE OF THE SUPERINTENDENT

Self - 1920
August 10, 1920.

Dear Sir:

The following is my report on conditions in the Yellowstone National Park, and on the operation of the park, for the month of July, 1920:

Aug.
GENERAL CONDITIONS:

The mean temperature during the month of July was 62.2 degrees, a departure of plus 0.7 degrees from normal for the month. Light frosts were observed on the mornings of the 7th and 8th. The total precipitation was 0.65 inches, which was 0.53 inches less than normal for July. Light thunderstorms were recorded on 14 days during the month. Regardless of the fact that the rainfall was light, the growing conditions were excellent as there was much snow in drifts on the north side of the mountains and in the timber, and this melting gradually kept the ground moist. A better growth of grasses and flowers has not been seen for many years. The road through Dunraven Pass was finally cleared of snow on July 1st, so that the regular travel was routed that way between Canyon and Mammoth, but there were several very wet places on this road caused by the rapid melting of drifts of snow, and these became so soft by heavy travel over them that several of the regular automobiles got stuck trying to get over them on July 2nd, and on the 3rd they were again routed via Norris. These bad places were repaired so they were again safe by the 4th of July, and since that date no trouble has been experienced in keeping this road open. The opening of Dunraven Pass on the 1st of July completed the opening of the whole belt line, the balance having been cleared before the opening of the tourist season June 20th. The last drift that had to be shoveled out of the road was on the north side of Mount Washburn, and this road over the top of the mountain was opened on the 19th of July. Conditions for travel over the top of the mountain have been unusually good since that date, and more cars than usual have been over it.

The Monthly Meteorological Summary, furnished by the U. S. Weather Bureau, is inclosed.

Travel.

Conditions for a thorough enjoyment of the park trip by travelers were excellent. The roads were in good condition, well sprinkled, and dragged after rains. The flowers and vegetation were especially fine. The Transportation Company, the Hotel Company, and the Camps Company, all gave most excellent service to their patrons, and complaints were very few considering the extremely heavy travel.

The inclosed Chief Ranger's Monthly Travel Report for July gives some of the most interesting figures on park travel ever compiled.

Other interesting statistics of the month's travel compared with 1919 are as follows:

LARGEST DAYS OF TRAVEL FOR PASSENGERS.

<u>1920</u>		<u>1919</u>	
July 31-Transpn. Company	532	July 22-Transpn. Company	346
July 20-Private cars	872	July 22-Private cars	658
<u>By entrances:</u>		<u>With Transportation Company.</u>	
July 26-North entrance	149	July 5-North entrance	151
July 31-West entrance	342	July 29-West entrance	192
July 6-East entrance	97	July 27-East entrance	153
<u>By entrances:</u>		<u>Private transportation.</u>	
July 28-North entrance	258	July 23-North entrance	260
July 25-West entrance	363	July 24-West entrance	295
July 24-East entrance	353	July 16-East entrance	238

LARGEST DAYS OF TRAVEL FOR PAID AUTOMOBILES.

<u>All entrances:</u>			
July 20 and 25	241	July 23	189
<u>By entrances:</u>			
July 18-North entrance	76	July 23-North entrance	68
July 25-West entrance	89	July 17-West entrance	69
July 24-East entrance	92	July 19-East entrance	61
July 21-South entrance	21	July 26-South entrance	29

LARGEST DAYS TRAVEL FOR TOTAL NUMBER PASSENGERS ENTERING.

July 20	1383	July 22	1004
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During the month of July, 1920, 31,009 people entered the park as compared with 24,090 people entering during July, 1919, which is an increase of 6920 people or about 29 percent increase.

During the month of July, 1920, 5,148 paid automobiles entered the park, as compared with 4,268 paid automobiles entering during July, 1919, which is an increase of 880, or about 20 percent.

During the month of July, 1920, 11,119 people entered the park with the transportation company, as compared with 7,049 people entering with the company during the same month in 1919, which is an increase of 4,071 people, or about 57 percent.

The total travel for the season to include July 31 was 38,463, as compared with a total of 31,060 for the same period for 1919, when the total season's travel went to 62,261. If this rate of increase continues, a total season's travel of nearly 80,000 can be expected.

Following will be found a list of States with the number of paid and complimentary cars and the number of people in these cars entering the park during the month from the different States:

STATES	NORTH		SOUTH		EAST		WEST		TOTAL	
	CARS	PEOPLE	CARS	PEOPLE	CARS	PEOPLE	CARS	PEOPLE	CARS	PEOPLE
Alabama	1	3							1	3
Arizona	1	5			7	23			8	28
California	2	8	2	12	3	8	12	45	19	73
Colorado	72	206	5	14	27	85	144	447	248	752
Connecticut	14	52	6	17	147	474	42	129	209	672
Delaware	4	14							4	14
District Col.	1	3					1	2	2	5
Florida	1	4			2	7	1	5	4	16
Georgia	3	10			7	19	1	2	11	31
Idaho	1	3					1	3	2	6
Illinois	1	2							1	2
Indiana	31	118	110	480	24	77	581	2326	746	3011
Iowa	39	148			70	256	13	37	122	441
Kansas	15	58			33	108	4	15	52	181
Kentucky	50	174	1	5	83	296	16	55	150	530
Louisiana	9	37			93	328	24	71	125	436

STATES	: NORTH		: SOUTH		: EAST		: WEST		: TOTAL	
	:CARS:PEOPLE:		:CARS:PEOPLE:		:CARS:PEOPLE:		:CARS:PEOPLE:		:CARS:PEOPLE:	
	1	2	1	3	2	9	2	9	6	23
Alaska					3	11	1	5	4	16
Alaska					1	6			1	6
Alaska	1	3			2	5			3	8
Massachusetts	2	7			2	5	2	8	6	20
Alaska	19	57			58	191	7	22	84	270
Alaska	79	296			37	131	7	21	123	448
Mississippi			1	5	1	4			2	9
Missouri	17	69			74	260	13	41	104	370
Alaska	659	2533	7	23	160	595	217	615	1043	3966
Alaska	28	91	2	7	167	575	22	77	219	750
Alaska	1	2	1	5	3	13	13	39	18	59
Massachusetts									00	00
New Jersey	4	14			4	15	1	2	9	31
Mexico					5	17	2	4	7	21
New York	14	54			16	49	6	21	36	124
North Carolina									00	00
North Dakota	75	301	1	2	26	99	2	6	104	408
North Dakota	23	71	1	4	49	159	6	19	79	253
Ohio	7	21	1	4	74	283	23	95	105	403
Ohio	38	126	2	6	7	29	43	146	90	307
Pennsylvania	6	23			21	69	4	14	31	106
Rhode Island									00	00
North Carolina					1	3	1	3	2	6
Tennessee	1	5	1	2	1	4	1	5	4	16
Tennessee	3	8	3	11	79	278	28	95	113	392
Tennessee	8	28	46	172	2	8	317	1260	373	1468
Montana	1	4							1	4
Minnesota	5	17			2	7			7	24
Washington	130	436	1	4	21	86	73	249	225	775
Virginia	2	7			2	7			4	14
Wisconsin	62	222	1	3	21	72	2	6	86	303
Washington	45	162	34	121	354	1377	15	55	448	1715
North Dakota	53	191			32	121	4	20	89	332
Idaho	27	102	1	4	4	18			32	124
Idaho									00	00
TOTALS	1556	5697	228	904	1726	6187	1652	6184	5162	18972

automobiles and desiring to camp out, was completed during the month, and was occupied by many travelers as soon as they were permitted to use it. The work in preparing this new camp consisted of piping pure water taken from the Hotel Company's water system, from Canyon Hotel, about 5,000 feet, to the new site which is located on the knoll just above Canyon Junction, formerly the site of the Wylie Permanent Camp, and clearing the site of old log buildings and other debris, piling the wood for use of campers, and furnishing an adequate number of toilets. A $1\frac{1}{2}$ inch galvanized iron pipe was laid about a foot under ground and a branch is taken off supply to Ranger Station and Whittaker's store. Eleven faucets were provided at convenient intervals, for the accommodation of parties in the camp, requiring 2,000 feet of $\frac{3}{4}$ inch pipe. Four toilets were provided by repairing some old ones that were already on the ground, and proper signs for the guidance of tourists placed throughout the camp. This is an excellent camp site, and replaces an old one which was badly located, and lacking in a supply of good water and toilet facilities.

A dozen new earth toilets were constructed in the carpenter shops, hauled out and erected for convenience of private automobile campers, as follows: 2 to Lava Creek; 2 to Tower Falls; two to Mammoth Paint Pots at the Fountain, and 4 to the new automobile camp which is being constructed at the Upper Basin

(b) Maintenance and Repair of Physical Improvements.

On the south approach road in the park during the latter half of the month a crew of from six to eight men was maintained, and on the east approach road in the park a larger crew was engaged in grading and repair work. Outside the park in the east forest a very small crew was engaged in repairing culverts and doing other maintenance work of similar nature. No grading was done in the east forest during the month, and no crew was placed on the road in the forest south of the park because that highway was placed in excellent condition last fall, and was not seriously in need of repair this spring.

Besides the above-mentioned maintenance crews, a big grader crew, under Foreman Cottrell, operated from Mammoth Hot Springs to Norris Geyser Basin. This crew did heavy grader work on that section of the Mammoth-Norris road lying

between the Obsidian Creek and the 18-mile post, two miles north of Norris Junction. This power grader crew tremendously improved the Mammoth-Norris road, and it is probable that it will remain in excellent condition during the remainder of the season. This work was completed on July 31st, and preparations made then to move the crew to the west approach road.

Five small crews with pack trains were kept in the field during the month, on trail work, accomplishing the following work:

1 crew of 3 men and 8 saddle and pack animals cleared out and repaired trails as follows: Mt. Washburn to Canyon, 18 miles; Canyon to Lake Outlet, 15 miles; Lake Hotel to Thumb, 16 miles; Thumb to Heart Lake, 16 miles; Heart Lake to Shoshone Lake, 16 miles; Shoshone Lake up DeLacy Creek to the main road, 10 miles; DeLacy to Old Faithful, via Norris Pass, 10 miles; Mallard Lake Trail near Upper Geyser Basin, 9 miles; and Mary Mountain Trail 30 miles. A total of 140 miles.

Another crew of the same size cleared out and repaired trails as follows: Willow Park to Norris, 12 miles; Norris to Fountain, 8 miles (not continuous); Lone Star Geyser to Shoshone Lake, 16 miles; Lone Star to Old Faithful, 4 miles; Fountain to Riverside, 16 miles; Riverside Station to Willow Park, 27 miles; Sepulchre Mountain trail, 7 miles; and Fawn Pass Trail 24 miles. A total of 114 miles.

Crew number 3, consisting of 9 men and 12 saddle and pack animals constructed 8 miles of new trail from Upper Lamar River to Frost Lake, noted under a previous heading; also cleared out 20 miles of trail from East Boundary to Lamar River, and 28 miles from Lamar River to Cold Creek, - a total of 48 miles cleared out.

Crew number 4, consisting of 7 men and 12 saddle and pack animals, cleared out and repaired 80 miles of trail, namely: Sportsman Lake trail, 26 miles, of which 4 miles was changed to the right bank of Specimen Creek; Gallatin to Grayling, 17 miles; Grayling to West Yellowstone, 12 miles; West Yellowstone to South Cabin, 12 miles, and South Cabin to Buffalo Lake, 13 miles, - a total of 80 miles.

Crew number 5, consisting of 7 men and 12 saddle and pack animals, cleared out 64 miles of trail, namely:

Gardiner to Knowles Cabin, 12 miles; Knowles to Hellroaring, 10 miles; Hellroaring to Park Boundary, 5 miles; Hellroaring to Tower Falls, 12 miles; Tower Falls to Cascade Creek, via Petrified Trees, 21 miles; Cascade Creek to Grebe Lake, 4 miles.

These crews will continue at least a part of August on trail maintenance and snowshoe cabin work.

A small crew was maintained doing heavy repair work on the telephone lines. Between Lake Junction and Sylvan Pass 16 poles were reset, and several breaks in the line repaired. Canyon to Tower Falls, through Dunraven Pass, about 20 miles, nearly all poles were reset and the line which has not been in use since 1916, thoroughly overhauled and put in service, thus giving two lines from Mammoth to Canyon. Between Tower Falls and Soda Butte nearly all poles were reset, and the location of about a mile of line at Jackson Grade was changed to prevent further trouble from poles washing out during high water. Three miles of the line between Tower Falls and Headquarters repaired.

There were innumerable small electric storms throughout the park during the month, and many fuses were burned out on the telephone lines, and other slight damage. It kept both of the regular linemen busy most of the time during the month keeping the lines open.

(c) Miscellaneous Improvement Work.

A man was employed throughout the month irrigating the field at the northern entrance; another man irrigated the meadows on Slough Creek, and a third man irrigated the meadows at the Buffalo Farm. A crew of about 8 men were employed during the month at the Buffalo Farm, repairing and building fences, and repairing equipment preparatory to harvesting the hay crop.

July 8 to 19, inclusive, Assistant Chief Ranger Brooks, in charge of the Southern District, was engaged in an examination of the elk range on the Buffalo Fork and the Gros Ventre watershed, south of the park, in company with Mr. D. C. Nowlin, representing the United States Biological Survey, and Mr. Jesse W. Nelson, grazing expert of the U. S. Forest Service.

(d) Service to the Public.

The total of 31,009 tourists entering the park

during the month of July at the four entrances exceeds any total travel in the park for one month on record. This was 29 per cent greater than the July travel for 1919. The most of the increase being in the rail travel, all public utilities are taxed to the utmost to transport and take care of the hordes. Of the 11,119 tourists handled by the Yellowstone Park Transportation Company on park trips, 6,239 were accommodated at hotels, and 4,880 at the Permanent Camps. The hotels and camps also accommodated a large number of tourists traveling in their private automobiles. It was necessary for the Transportation Company to hire a few extra passenger cars from outside to handle the traffic, but fortunately the people did not come in crowds but were fairly evenly distributed.

All of the concessioners rendered excellent service and many compliments were heard of the careful and obliging disposition of the chauffeurs of the Transportation Company, and the excellent accommodations found at the hotels and camps. The service is especially good, when the reasonable rates charged are taken into consideration. The public camps occupied by travelers in their own cars were well filled up constantly, and were thoroughly appreciated. Improvements to the main camps are being made as rapidly as practicable. On account of the large numbers of people using them, it has been found necessary to keep a man employed constantly in each of the large ones at Mammoth, Old Faithful, Lake and Canyon, to keep them cleaned up and in a sanitary condition.

Information Service:

A total of 3136 inquirers visited the information office during the month of July. Six hundred and ninety-five (695) of these visitors asked specifically for the museum. Virtually all of them were interested in the few specimens for which there is room in the office, and spent considerable time viewing them and asking questions.

There was an average of 101 inquirers a day, and our office proved so very small that we feel obliged to lessen our publicity somewhat until larger quarters can be provided.

A total of 375 pamphlets and 55 maps were sold.

A series of monthly bulletins on Flowers, Geology, Animals and Birds, was prepared and placed at all Ranger Stations, camps, hotels and stores, at the beginning of the season. A total of 31 sets of bulletins was so placed and they have attracted a great deal of interest and discussion. The posted bulletins started a demand for copies and we accordingly gave out 42 sets from the office. Copies of these bulletins are inclosed herewith.

One ranger on duty with the show herd of tame buffalo, about a mile south of Headquarters, estimates that he had more than 15,000 visitors to view and inquire about the buffalo.

IV. WORK IN PROGRESS.

(a) Construction of Physical Improvements.

The construction of a new public camp at Upper Geyser Basin, to take the place of the old one which was located too close to the Camps Company, was begun on July 22, and is still in progress. This camp is located across the road from Old Faithful Geyser, in the timber. A temporary water supply has been provided by connecting up with the mains of the Hotel Company; toilets have been provided, avenues cut through the trees, and the camp laid out systematically. It is completed to the extent that it has been opened for occupancy, but much more work is still to be done. A permanent water supply is to be provided independently of the Hotel Company.

Construction work on the under-pass bridge near Sylvan Pass was resumed during the month. This work is being done under contract with Perham & Harris, and is a project covered by 1919 fiscal year funds.

Extension of time within which the work is to be completed was granted July 21st. The limit under the extension is August 17th.

I inspected the work on July 31st, and found the contractors nearly ready to pour concrete for the arch of the structure. Most of the rock facing had been completed, and the legend "W. P. S. 1919" worked in concrete above the arch on both sides of the structure had been finished. I believe the bridge will be completed within the new time limit, but scarcity of men and adverse weather conditions may cause further delay.

(b) Maintenance and Repair of Physical Improvements.

During the month of July all of the roads of the park were maintained in good condition for travel, maintenance work being performed on all of the approach roads and

the main "loop" system, including the Canyon-Norris road. A small amount of maintenance work was also done on the east forest road. No crew, however, was placed on the south forest road. Neither was any work performed on the road in the northwest corner of the park leading to the Gallatin or northwestern entrance. Work done on the Cooke City road was paid for in most part by Mr. W. D. Marlow, of the Republic Mines and Transit Company, Livingston, Montana, under his permit of July 7, 1920. The total amount of Mr. Marlow's expenditures on the road was \$1,200. Approximately \$500 was expended by the National Park Service in repairing the Baronett Bridge over the Yellowstone and the bridge over the Lemar River.

In the days of General Chittenden the roads of Yellowstone Park were maintained by small section crews, with great success. This year we concluded to go back to this section crew method of maintaining the road system, and accordingly on July 1st approximately twenty crews were organized and sent out into the park, each one being charged with the repair and upkeep of from 14 to 28 miles. Most of the crews, however, were charged with working only about 14 miles of highway. The crews varied from two men and one team to twelve men and four teams. In some cases the smaller crews had as many as five teams. Each crew was charged with sprinkling its particular section, as well as with the duty of operating gravel wagons for the purpose of filling up ruts and chuckholes. The success of these section crews far surpassed our expectations. The roads throughout the month were kept in unusually good condition, and we had many compliments from visiting tourists.

The above-mentioned maintenance crews were located at Mammoth Hot Springs, Beaver Lake, Gibbon Meadows, Madison Junction, Excelsior Geyser Basin, Spring Creek, Thumb of Lake Yellowstone, Lake Junction, Trout Creek, Canyon Junction, Virginia Meadows and Mt. Washburn.

During the last days of the month Foreman Conohan, in charge of the crew on the Cooke City road, was moved to the vicinity of Geode Creek, with instructions to go grader work on the road west of Tower Falls and complete a fill over a concrete culvert in Geode Creek.

It should also be noted that a crew operating under the direction of General Foreman J. B. Small was organized to continue the widening of the road in Dunraven Pass. The

early part of the month was spent by Foreman Small's crew in filling up chuckholes and keeping passable the road in the snow banks, which had been cleared by the caterpillar tractor late in June. It was nearly the middle of the month before the large snow banks disappeared, thus giving the road an opportunity to dry out. After this necessary maintenance work was performed Small continued the widening work begun last year, using a steam shovel and compressed-air drills. Labor difficulties, however, somewhat slowed up his work. Nevertheless, it is expected that he will complete, or practically complete, this important project before snow drives him out of the Pass. In the early part of the month Small also supervised a crew which was engaged to clear snow from the Mt. Washburn road. By the 15th of July the road leading to the top of Mt. Washburn from the south was opened for automobile travel, and the road on the north slope was finally cut through on July 19th.

About July 10th Foreman Muse undertook the project of graveling bad stretches of road between the Lake Ranger Station and Mud Volcano, using a 120-H. P. caterpillar engine with eight trailers. About July 20th the caterpillar, because of its great weight, sank into a morass that was thought to be sufficiently dry and strong to sustain it; and in getting the machine out some parts were broken, which prevented further use of the machine during the month. Pending the arrival of parts, five-ton Mack trucks with dump bodies were sent to continue the graveling work.

Muse's crew also undertook the widening of the fill between Lake Hotel and the U. S. Fish Hatchery, a section of road that has been responsible for several accidents. All of the road maintenance work was under the direction of Engineer L. L. Hill, assisted by Engineer A. W. Burney. Mr. Hill spent most of his time on the east side of the park, while Mr. Burney devoted himself exclusively to the western section of the park.

Practically all of the road maintenance work mentioned above in progress at the present time will be continued through the month of August. There can be very little reduction in road crews until the early part of September.

Other work in progress at the close of the month included the construction of walks in the Upper Geyser Basin; and the fabrication of signs for the information and guidance of tourists.

The shop force repaired and kept in order the automobiles, trucks, motorcycles, tools and equipment.

The plumber in charge devoted most of his time to the development of the new public camps at Canyon and Old Faithful, and it was necessary to hire an assistant to keep up the maintenance work on the plumbing system at Headquarters.

The painter with two assistants continued the work of painting and placing adequate signs for guidance and information of travelers throughout the park, and made excellent progress with this work.

Four electricians were employed, - three of them operating the hydro-electric power plant, and the other with wiring and line work. A total of 16,860 Kilowatt hours of current were generated. Of this 8,230 KWH was consumed by concessioners, 1,059 for street lighting, and 7,571 KWH for government buildings and shops. The peak load for the month was 62 KW. The Chief Electrician devoted most of his time to outside work, and during the month with the assistance of a small crew set poles and established a street lighting circuit from the present circuit at the south end of the grounds up the hill to Mammoth Camp, to light the way for the many people who walk from the camp to Headquarters during the evenings. They also connected up the northern entrance checking station with the Gardiner City electric lighting system, so as to provide light for registering automobiles in the evening. (400' pole line)

(c) Miscellaneous Improvement work.

Two to four men were kept busy at Headquarters throughout the month, watering and mowing lawns, and doing general cleaning up work.

Three of the old ice-houses located in front of Mammoth Camp were torn down. There remains one ice-house and a lean-to to tear down, to improve the appearance in this vicinity.

Improvement by Concessioners.

The Yellowstone Park Camps Company constructed temporary dressing rooms and office room around three sides of the new natural hot water plunge at Mammoth Camp, and the plunge was opened for public use and has proven most popular. This company also did some minor work at the new

Lake Camp, and continued the work at Camp Roosevelt, completing the two large stone chimneys and the floor in the large lobby. The kitchen was also completed and put in operation.

The Yellowstone Park Transportation Company maintained an adequate shop force for repairing its own automobiles, and doing emergency work for others. This company nearly completed a new gas filling station at Mammoth, on a site between the post office and the Cottage Hotel, which was begun during June.

The Yellowstone Park Hotel Company finished the building of a new porte cochere at the Lake Hotel, begun during June. A little work was also done on the dormitory under construction at the Canyon.

Mr. J. E. Haynes completed his new picture shop at Mammoth and installed the furniture, and the building is now in use.

Mr. C. A. Hamilton built a new filling station for sale of gasoline and oil, in connection with his general store at the Upper Geyser Basin, with the exception of a few knots to be placed for trimming to match his store building. The gasoline tank is also yet to be installed. Mr. Hamilton also continued work on his new store at the Lake Outlet, and this work is about half completed.

Mr. Geo. Whittaker finished the work on his new general store at Grand Canyon, begun last fall, except a little work on the porch.

V. WORK BEGUN.

The new work begun during the month was the new public camp at Upper Geyser Basin, and the construction and clearing out of trails, referred to under preceding paragraphs.

In Upper Geyser Basin a crew under Deate T. White, foreman, began the construction of new walks through Black Sand Basin, the section of the main Upper Basin in which most of the beautiful pools are located. For many years board walks of insecure construction had been used by tourists in part of the Basin, but through most of the area visitors had to walk in water, usually no deeper than the

soles of their shoes, but sometimes as much as a half inch deep. The old walks were not over two feet wide.

The new walks will be 7 feet wide. They are unique in design, and harmonize splendidly with the surroundings. The method of construction is as follows: Two curbs 6 feet apart are built of reinforced concrete, 6 inches wide at top and 8 inches at bottom. After the curbs have set, the forms are removed and sand of the same color and texture as the Basin itself is placed between them. This sand has just enough cement mixed with it to keep it firm and hard. The walk is well crowned so that water will run off quickly. Under the walks small tile culverts are placed in order to prevent interference with the natural drainage of the Basin. A total of 550 linear feet of walks was built in July.

This walk system in Black Sand Basin was started as an experiment, but the method has already proved to be successful, and next year we should have money with which to continue construction of these walks in Lower Geyser Basin, Norris Basin, the hot spring basin at the Thumb of Lake Yellowstone, etc.

VI. PLANS OR PROPOSED WORK.

It is proposed to regrade and improve the roads leading into and out of Camp Roosevelt. These roads are old and have very high centers, also they are not well laid out with reference to the new central camp building. The roads will be relined and improved, largely with the grader crew. It is also proposed to begin work as soon as possible on a new approach road to the Mammoth Hot Springs Camp. This improvement is made necessary by the proposal on the part of the Camps Company to erect a new amusement building, which will completely cut off from use the present approach road.

During the month of August it is also proposed to tear up approximately five miles of pavement on the west approach road, and improve this highway by restoring it to its former status of a gravel surfaced highway. This pavement was laid some six years ago as an experiment. Shortly after completion the road began to ravel and break up, and during the past year it has become almost impassable. The improvement of the road will consist in the operation of a scarifier, drawn by the 75-HP caterpillar, followed by power grader work, and finally rolling with a powerful gasoline roller.

It is also proposed to send a crew south of the park for the purpose of repairing culverts and performing necessary grader work on the road leading south through the Teton National Forest, to the Buffalo Fork of the Snake River. In all likelihood, another crew will be organized to do revetment work along the road in the Shoshone Forest east of the park.

The arrangements to begin the work of taking up 200 acres of additional land at the buffalo farm for raising hay for the buffalo herd, mentioned in last month's report, were not completed. Necessary tools and teams have been ordered, and it is expected to get this work under way during August.

The work of clearing out old trails and building new ones, and building a few additional snowshoe cabins, is to be continued, but with a smaller force than during July.

Other work mentioned under IV is to be continued.

VII. POLICIES.

No new policies were adopted during the month.

VIII. COST OF OPERATION.

The cost report for July is not completed, but will be forwarded as soon as practicable.

IX. OTHER MATTERS OF INTEREST.

Wild Animals.

A splendid increase in the number of young wild animals has been observed this year, notwithstanding the fact that it was feared that the abnormally severe winter would cut down seriously the new-born of the many species which make the park their home.

Forage conditions were excellent. Grass is very abundant throughout the park. The animals did not frequent the ranges adjoining the roads to the usual extent, and but a small percentage of the tourists see elk, deer, antelope or mountain sheep. Bears can always be seen at certain times of the day at the garbage dumps if tourists are sufficiently interested to go to look for them, and they are also seen quite often in the open.

Buffalo, tame herd: This herd was grazed on Mount Morris, and was brought down occasionally for some special party. The show herd at Headquarters was visited by fifteen to twenty thousand tourists during the month.

Buffalo, wild herd: No reports were received of the wild buffalo.

Bears: The bears could be found any evening just before dark at the garbage dumps at Old Faithful, Lake, Canyon, and very few who cared to take the trouble to go to location of the dump at the right time were disappointed. Depredations by bears were few.

Doctor Pope and his party left the park. There is some evidence that this party overstepped the limits of their special permit to secure specimens of grizzly bears for the California Academy of Sciences, but this matter has been made the subject of a special report. The publicity given to this work by members of the party has proven most embarrassing to this office and to the Service, and has caused much unfavorable comment.

Antelope: A few antelope are seen occasionally from along the road on the north side of the park. One band of nearly 150 were reported high up on Blacktailed Deer Creek, by one of our rangers looking for horses.

Deer: A few deer were seen occasionally around the hotels or camps, but most of them are on their summer ranges, where they are seldom seen. Deer may be seen at any time near the Lake Hotel and the Canyon Ranger Station, as about seven range near each place. It is not uncommon to see deer on Swan Lake Flats and near Virginia Meadows.

Elk: The numerous bands of elk seen the latter part of June have disappeared from the vicinity of the roads, and only occasionally were elk seen by travelers. Assistant Chief Ranger Brooks saw 1,500 on one patrol to Upper Yellowstone. Flies and mosquitoes are very numerous and troublesome, and it is natural for the elk, deer and mountain sheep to go to the higher levels to escape them. A good crop of calves is reported.

Mountain Sheep: None were reported.

Moose: A few moose were seen occasionally during the month. Assistant Chief Ranger Brooks saw 42 on a patrol to Upper Yellowstone country.

Carnivora: No wolves, mountain lions, or coyotes were killed during July, and they were not much in evidence.

Beaver: Yellowstone Park boasts some of the finest examples of beaver architecture in existence, notably the house and dam on the road from Tower Falls to Mammoth Hot Springs, where a large and growing community is sheltered. Nearly all passing cars stop to view this wonderful work, and it is not unusual to see several beavers at work after about 6.00 o'clock in the evening.

Grazing: Growth of all kinds of vegetation was unusually good, and grazing was never better than it has been this season.

Birds.

Notes on the birds of the park will be found under the heading "Seasonal Changes" by Park Naturalist Skinner.

Fishes.

Fishing was generally excellent, and thousands of tourists enjoyed the fishing at the Lake Outlet, and along many of the streams throughout the park.

On July 17th 8,000 Eastern Brook Trout (*fontinalis*) were received from the United States Fish Hatchery at Boseman, Montana, and planted in Gibbon River at Virginia Meadows.

Seasonal Changes.

Botanical: Again I have to report that it has been a wonderful month for flowers, both in quantity and in quality of the blossoms. The grasses and forage crops too, have had a fine growth. Below the 6000 foot level, sunflowers began to bloom on the 20th and golden-rod on the 24th. In the neighborhood of Mammoth, globe mallows appeared on the 25th; fire-weed near Tower Falls on the 20th and on the park plateau a day later. Wild roses in bloom near Soda Butte on the 7th and four days later at Mammoth. On the park plateau, camass was in bloom in quantities on the meadows near Lake; columbines in bloom on

the 4th; harebells on the 6th; wild onions on the 16th, (although they appeared two weeks earlier near Camp Roosevelt); yellow water lilies on the 11th, and monkshood on the 25th. Service berries in bloom on the 3rd on park plateau, altho they disappeared at lower altitudes two weeks earlier. Strawberries were ripening in numbers at Upper Geyser Basin on the 29th, and red raspberries near Mammoth on the 31st.

Birds: The pine siskins that were so numerous in June disappeared about July 2nd, when the supply of dandelion seeds gave out. The first indication of approaching fall migration came on the 15th when the blackbirds began to gather in flocks; the first bird to return from the north was the willet on the 20th, followed by Wilson phalarope on the 30th. Almost all our birds were nesting in July with the young of various species appearing daily. From the 1st to the 15th cliff swallows were busy building their mud-retort nests. On the 5th there were a hundred young pelicans and fifty California gulls on Molly Island with about as many more eggs to be hatched later. On the 21st the ravens left their nest at Obsidian Cliff and the bluebirds began to gather in flocks. Unfortunately a severe hail-storm on the 15th destroyed most of the osprey nests at the Canyon of the Yellowstone altho the parents at the nest below Grand View succeeded in protecting their two offspring thru the storms of July 15th and those of the succeeding ten days. Bird songs were heard for the last time: Lincoln sparrow on the 4th; chipping sparrow and meadow-lark on the 7th; pink-sided junco on the 13th; robin on the 16th, and white-crown sparrow on the 31st. A pair of trumpeter swan noted on West Thumb Bay on July 4th.

Animals: The antlers of the majority of the elk are not yet quite grown altho the mule deer have completed their growth. All antlers still in "velvet." Practically all large animals except the bears have retired from the tourist routes because of heavy traffic, but there are a dozen deer frequently seen near the Canyon and a half dozen small mountain sheep on Mt. Washburn. The condition of all animals continues good.

Probably July vies with January in its almost total absence of characteristic changes. What changes were

last month were about normal.

Arrests and Violations of Law.

Following is a list of arrests with the circumstances concerning each:

<u>Date.</u>	<u>Name.</u>	<u>Cause.</u>	<u>Punishment.</u>	<u>Arresting Ranger.</u>
2nd	H. R. Laferty	Speeding	\$20 and costs	E. Mathew.
7th	C. F. Schultz	Speeding	\$10 and costs	R. Sprinkle.
9th	(P. F. Duggan	Writing on	Reprimanded	C. J. Smith.
	(H. N. Nye	formation	Reprimanded	C. J. Smith.
12th	G. A. Grapes	do.	do.	C. B. Dewing.
12th	G. O. Goldberg	Violation of	Reprimanded and	
		traffic rules	made to replace	G. T. Dustman.
			damaged articles	
16th	Chas. Miller	Writing on		
		formation	\$25 and costs	G. T. Dustman.
16th	G. S. Warren	Unlawful		
		fishing	\$5 and costs	C. O. Davis.
19th	Leo Dreher	Writing on		
		formation	\$25 and costs	C. B. Dewing.
21st	(C. A. Garrett	Violation of	\$25 and costs	L. Sarrett.
	(J. R. Mack	trfic. rules	\$25 and costs	L. Sarrett.
24th	(J. C. Lauer	Writing on	\$10 and costs	W. Bishop.
	(E. Douglas	formation	\$10 and costs	W. Bishop.
27th	G. H. Smith	Breaking		
		formation	\$10 and costs	W. H. Harrison.
28th	E. R. Eldridge	Unlawful		
		fishing	\$10 and costs	E. Meade.
29th	R. F. Haller	Writing on		
		formation	\$25 and costs	C. Watkins.
30th	L. L. Palsley	Speeding	\$25 and costs	(E. Mathew.
				(W. Bishop.
30th	T. G. Sullivan	Writing on		
		formation	\$25 and costs	W. H. Harrison
31st	J. H. Smart	Leaving fire	\$25 and costs	E. T. Seoyen.

Forest Fires.

Fire patrols were maintained from park stations throughout the month. One arrest was made for leaving a fire burning in camp near the Canyon, but no serious results came from fires during the month of July. The danger from forest fires was not great, as the weather was generally wet.

Accidents and Casualties.

One death occurred in the park, on July 31st. Miss Mary Smith, a girl of about 14, traveling with her mother and stepfather, Mr. M. Goodwin, died in the public automobile camp at Old Faithful of heart failure. An undertaker met the party at Gardiner and the body was shipped back to Fort Collins.

On July 11th Mr. J. R. Alderson, wife, son and daughter, - 4 in party, - from Strawberry Point, Iowa, in Buick light six car en route Canyon towards Tower Falls. About 5 miles from Canyon going up hill the engine died. The son, R. T. Alderson, who was driving, got out to crank it as the starter would not work. He unwittingly left it in reverse instead of neutral, and when engine started the car ran backwards and went over bank, wrecking it badly. All climbed out except the mother, who sustained a badly wrenched right shoulder, and some minor bruises and contusions. There were no broken bones, and the mother is recovering. Car towed into Gardiner for repairs, and Doctor Crawbuck is looking after the mother.

Yellowstone Park Transportation Company's ten-passenger car No. 69, loaded with tourists, left the road on a curve a little south of the 9-mile post, Mammoth towards Norris, about 2.45 the afternoon of July 18th. The only person injured was J. G. Carter, 715 Adams Street, Toledo, Ohio, who sustained a fractured arm. The arm was set by Dr. T. W. Myers, of Wichita, Kansas, who was traveling in another car with the Transportation Company. Other passengers in the car were: Mr. and Mrs. S. E. Brookover, Box 684, Boise, Idaho; Mr. and Mrs. L. Markovitz, 7156 Burrett Ave., Chicago, Illinois; Mrs. Roy C. Henderson, Mrs. J. C. Davidson, Miss Jo Davidson, Roger Davidson, all of Waco, Texas; Mrs. S. S. Starnes, Columbia, Mississippi; Mrs. S. Kemp, Columbia, Miss. These people were interviewed and with one exception they all spoke well of the driver. One of the ladies, however, thought that he was careless, and said she had been nervous ever since she had begun her ride in his car.

Dr. Redden was called from Mammoth, and took the injured man in; another car was sent out to take the passengers to West Yellowstone.

Several passengers said that Mr. Carter jumped from the car and landed against a stump.

On July 4th, Doctor J. N. Stryker, of Livingston, Montana, jumped from the running board of a car and landed in front of another car which was running close behind. The

lady driving the rear car was unable to stop when the car ahead slowed down and she ran out to the side. He was quite seriously injured, several ribs being broken, and his arm badly torn and lacerated. He was taken to Chico Hot Springs to the Hospital. He has recovered from his injuries to the extent he is able to be out.

On July 28th Yellowstone Park Transportation Company's car No. 54, en route to West Yellowstone, went off road at some point between the Frying Pan and Norris, tipping over on its side. Occasioned by meeting Company's hired car No. 186 going in the opposite direction towards Mammoth. Nobody was seriously hurt. A car was sent out to take passengers along to West Yellowstone.

On July 18th Yellowstone Park Transportation Company's hired car No. 169, driven by the owner Mr. Pelpin, left the road at a point at the 11-mile post from Old Faithful towards Thumb, and struck a tree. The occupants of the car were employees of the Hotel Company engaged in cutting wood, namely: Mr. and Mrs. Fox, George Thompson, John Peterson, and William Henderson, all of whom were more or less bruised up, but no bones broken. The driver claimed that he struck a soft spot in the road where the grader had been over it, throwing him off. This is a poor excuse, if true.

Natural Phenomena.

At Norris Geyser Basin the MONARCH Geyser and the BATH TUB have not been playing at all this season.

At the Lower Geyser Basin the FOUNTAIN Geyser has been playing quite regularly from its old crater at about a 4-hour interval, while the GREAT FOUNTAIN is playing on its old interval of from 8 to 12 hours.

At the Upper Geyser Basin the interval of OLD FAITHFUL Geyser is still being lessened. In June the interval between eruptions was 64 minutes, whereas during the last week of July the average interval was a trifle less than 63 minutes. The DAISY Geyser plays quite regularly from 80 to 85 minute intervals. During this year the GIANT is playing on an interval of about 7 or 8 days. The GRAND Geyser still continues to play at very frequent intervals, and practically every party of tourists sees it in action. The RIVERSIDE Geyser has lengthened its period a trifle until now the average interval is nearly seven hours.

Distinguished Visitors.

Appropriations Committee Tour:

The Appropriations Committee of the House of Representatives arrived at West Yellowstone, Montana, the western entrance of the park, on the morning of July 19th. The following members of the Committee made up the party: Messrs. James W. Good, of Iowa, Chairman; William R. Wood, of Indiana; Louis C. Cramton, of Michigan; Burton L. French, of Idaho, (all republicans); Joseph W. Byrnes, of Tennessee; John M. Evans, of Montana; John J. Egan, of New Jersey; and James F. Byrnes, of South Carolina, (democrats). It should be noted, however, that Mr. Byrnes, of South Carolina, arrived at the north entrance on July 18th. Other members of the party arriving at West Yellowstone were Hon. N. J. Sinnott, Chairman of the Public Lands Committee; Mr. J. B. Beadle, of the Reclamation Service; and Mr. A. K. Barta, Clerk of the Appropriations Committee.]

Previous to the arrival of the Committee the wives and other relatives of several members entered the park at the north gateway. Mrs. Louis C. Cramton and daughter Margaret arrived on the morning train Tuesday, July 13th. Mrs. James W. Good and her sister, Mrs. John Fletcher of Chicago, arrived on the morning train Wednesday, July 14th. Mrs. Burton L. French arrived on the morning train Saturday, July 17th. On the evening train of the 17th Mrs. John M. Evans and her son Phillip arrived. On the morning train July 18th Mr. and Mrs. James F. Byrnes of South Carolina arrived. Either Mrs. Albright or myself met all of the early arrivals at the train, and escorted them to the Mammoth Hotel, and arranged there for their accommodations. On the morning of July 15th, under the guidance of Park Naturalist Skinner, Mrs. Good and her sister and Mrs. Cramton and her daughter started for a tour of the park, Mr. Skinner using his own car for transportation. The night of the 15th was spent at Old Faithful Inn, the 16th at the Lake Hotel, and the 17th and 18th at the Canyon. At the Canyon Hotel they awaited the coming of the Committee. On Sunday, the 18th, I personally conducted Mr. and Mrs. Byrnes, Mrs. French, and Mrs. Evans and her son Phillip, to the Canyon Hotel, where they also awaited the coming of the Committee. All of the early arrivals stated they had a wonderful time in the park, not only after the Committee arrived, but while they were touring alone under the guidance of the park officers. ✓

On the morning of July 19th I met the Committee at West Yellowstone, and arranged for transportation of themselves and their baggage on two ten-passenger cars of the Yellowstone Park Transportation Company. New cars, just received from the factory, were placed at their disposal. From West Yellowstone the party proceeded up the Madison and Gibbon Rivers, to Norris Basin, thence across the park to the Grand Canyon, where they met the ladies of the party and Mr. Byrnes. In the afternoon all of the men, with the exceptions of Messrs. Good, Evans, and Cranton, went fishing in the Yellowstone River above the Mud Volcano, and had fair luck. The ladies and the three members of Congress who did not go fishing visited the Grand Canyon, and took a ride out through Hayden Valley, under the guidance of Park Naturalist Skinner and myself. ✓

On the morning of July 20th the members of Congress who fished the afternoon before visited the Grand Canyon and surrounding region; and then, joined by the other members of the party, we all proceeded to the top of Mount Washburn. The day was bright, and the atmosphere clear. The panoramic scenes from the summit of Mount Washburn were wonderful. And never have I seen the wild flowers more beautiful. Growing in the greatest profusion, they completely carpeted the mountain. Descending the mountain, Camp Roosevelt was reached at one o'clock. Here a bountiful trout dinner was served by the Yellowstone Park Camps Company. During the dinner Mr. Hays and I told the Committee something about Camp Roosevelt, and what we hoped to accomplish by its development. In the afternoon all of the members of Congress, except Judge Evans of Montana and Mr. Sinnott, went fishing in the Yellowstone River, under the guidance of Ranger Dewing of the National Park Service and Mr. Lambert, an old-time fisherman of this section. Several members of the party had excellent luck, particularly Messrs. Wood and Byrnes of South Carolina. The fishermen came to Mammoth Hotel about nine o'clock, having taken dinner at Camp Roosevelt. The ladies and other members of the Committee arrived at Mammoth about five o'clock. ✓

On the morning of Wednesday, July 21st, I made up the following party, which I took for a drive in the official park car: Messrs. Good, Wood, Byrnes of Tennessee, Evans, Cranton, and French. We visited Gardiner, looking over the site of the elk slaughter of last fall and the elk feeding grounds; I also took the opportunity to show the members of Congress the natural reservoir site lying between the park and Yankee Jim Canyon. Returning to Mammoth Hot Springs, we visited the shops, the commissary, the office, etc.; ✓

also the show herd of buffalo and the Mammoth Camp. Meantime the ladies and the other members of Congress visited the Mammoth Hot Springs and inspected the show herd of buffalo. Taking an early lunch at Mammoth Hotel, the entire party started, in the afternoon, for Old Faithful Inn. In the official car I had with me Messrs. Good, Wood, Byrns of Tennessee, and Simmott. On the way to Old Faithful Inn all of my party and another car carrying the remaining members of the Committee visited the Firehole cut-off and the Great Fountain Geyser road in Lower Geyser Basin. I explained both of these important projects to the Committee, and the members seemed much impressed with the need of these improvements. In Upper Geyser Basin I showed them where we needed new walks across the basin, and also pointed out the need of a new ranger station. The evening at Old Faithful Inn was clear and beautiful; and the nine o'clock eruption of Old Faithful, upon which the search-light was played, was the most wonderful eruption of the great geyser that I have ever seen. Everybody was thrilled and charmed by this scene. ✓

That night I proposed to the Committee two different itineraries for the next day; one offering a trip to Jackson Lake, the other simply a ride to the Lake Hotel, and there take boats for fishing or pleasure riding on Lake Yellowstone. The following chose the Jackson Hole trip: Messrs. Simmott, Egan, French, Cranton, and Mrs. Cranton and daughter. Mr. J. B. Beadle of the Reclamation Service also chose the Jackson Hole trip. The remainder of the party decided to go to the Lake Hotel.

Early on the morning of the 22nd, under the guidance of Messrs. Howard Hays and Frank Reedy, the one party left for the Jackson Lake, and returned to the Lake Hotel about 7.30 the same night. Under the guidance of Park Naturalist Skinner and myself, the other party reached the Lake Hotel at twelve o'clock. At the Thumb of the Lake I explained how a dam at the outlet of Lake Yellowstone would destroy the fishing cones and many other beautiful springs, as well as some very important sections of road. After luncheon at the Lake Hotel the following members went fishing in motor boats: Messrs. Good, Wood, Byrns of Tennessee, and Byrnes of South Carolina. The ladies, with Judge Evans, went in a large motorboat for a cruise in Lake Yellowstone, under the guidance of Mr. Skinner. I spent the afternoon arranging for a trip out of the park. The fishermen had wonderful luck, all making good catches of large fish. Mr. Wood and Mr. Byrns of Tennessee said they had had the best sport that they ✓

had ever enjoyed anywhere. About five o'clock in the afternoon of the 22nd, Mr. and Mrs. Mondell arrived from Cody; also Director A. P. Davis and Mr. Weymouth, Construction Engineer of the Reclamation Service arrived. ✓

The evening was spent about the hotel, about one-half hour being devoted to a conference regarding the tour of the Shoshone irrigation project. ✓

I neglected to say that between the Thumb of the Lake and the Lake Hotel the two cars bearing the Congressional party were "held up" by a beggar bear, much to the delight of the distinguished visitors. The following morning, July 23rd, at eight o'clock the entire party started for Cody. I also invited Mr. Jesse W. Nelson of the Forest Service to accompany us. He had arrived at the Lake Hotel, after an investigation of cattle grazing problems in the Teton Forest. Just as the Fishing Bridge was crossed a mother bear and two cubs came out to the road, as if to bid farewell to the visitors. A little farther on a male mule-deer jumped across the road. ✓

The party arrived at Sylvan Pass Ranger Station at 10.20 that morning, and reached the Shoshone dam about 12.45. Here we were met by Mr. J. S. Longwell, Manager of the Shoshone Reclamation Project, and citizens of Cody, Powell, and other Wyoming towns. Proceeding to Cody, we were served with a special luncheon at the Irma Hotel, as guests of the Cody Club. President Ewart of the Cody Club presided, and called upon Messrs. Good and Mondell for short addresses. After luncheon the members of Congress, accompanied by the Reclamation Service officials and the citizens of Cody and Powell, proceeded with their inspection of the Shoshone project. ✓

Before I left Cody every member of the Appropriations Committee and Mr. Sinnott expressed themselves as thoroughly pleased with everything they had seen in the park, and each stated that he had no criticism to make of its administration. Furthermore, they all stated that they had had a very restful and enjoyable trip. Mr. Wood and Mr. Byrnes of Tennessee both stated that they expected to return next year, with their families. While Mr. Byrnes of South Carolina announced his intention of returning as soon as possible, and making a trail trip through the park. ✓

In the course of his inspection of the park, the Chairman, Mr. Good, and several other members took a great interest in the ranger station problem, and Mr. Good was particularly interested in the free automobile camps. I ✓

think he is thoroughly in sympathy with our plan of erecting big new ranger stations at Upper Basin, Lake, and Canyon, to be used not only for housing rangers, but to serve the more important purpose of community centers for visiting motorists. The Committee was also impressed with the need for a rest station and lookout tower on Mount Washburn. Likewise, they favored a building at the north gateway that would harmonize with the arch, this building to be used as a checking station. All members of the Committee were impressed with three road projects; the Firehole cut-off, the Lower Geyser Basin road, and the Lake-shore road between the Thumb and Bridge Bay. I have no doubt that in the course of the next year or two we will get money for all of these projects.

The Yellowstone Park Hotel Company, the Yellowstone Park Boat Company, and the Yellowstone Park Transportation Company all complimented the party, making no charges whatever for any service except for laundry work and other incidentals. The Yellowstone Park Camps Company provided the banquet at Camp Roosevelt free of charge.

The visit of Secretaries Payne and Daniels:

Secretary Payne returned from Seattle several days ahead of his schedule. Mr. Trefethen wired me he would reach Yellowstone Park on July 26th, considerably ahead of the schedule he had tentatively approved for his visit to this park. Later on I got a telegram from Mr. Trefethen stating that Senator T. J. Walsh of Montana had invited the secretaries to stop in Helena as his guests, and then proceed to Yellowstone Park as the guests of the Montana people. The Secretaries proceeded from Seattle to Helena, spent the night of July 25th with Senator Walsh; and on the morning of the 26th motored to Yellowstone Park by way of Boulder, Three Forks, and Bozeman. The Trail Creek route from Bozeman to the Yellowstone Valley was followed, Livingston being omitted. At Bozeman Governor S. V. Stewart and his family joined the party, the Governor driving his own car. At Trail Creek several carloads of citizens of Livingston, Big Timber, and Billings joined the party. There were, therefore, eight or ten automobiles loaded with passengers and belonging to the Secretaries' party when they reached the north entrance, where Mr. W. M. Nichols and I met them.

In the meantime, Mrs. Daniels arrived on the 5.30

train. I met her at the station and conducted her to the Mammoth Hotel. She came direct from Washington.

After dinner Secretary Payne came down to the office and we talked over the proposed tour. He also had a conference with Senator C. B. Henderson of Nevada, who was interested in having a silt bar taken out of Lake Tahoe in order to supply more water for the Truckee Project. Secretary Payne approved my suggestions for his tour. He then talked to me at some length about the irrigation proposition, the water power bill, and the Cooke City road situation.

The morning of the 27th we started for the tour of the park, after thoroughly inspecting our industrial plant here. Secretary Payne visited the shops, the automobile camps, and the office, and my home, leaving the remainder of the party at the hotel. We left Mammoth Hotel in two cars, Secretary Payne, Senator Walsh, and Commander Foote, Secretary Daniels' aid, riding with me, and the second car carrying Secretary and Mrs. Daniels, Senator Henderson, and Montana State Senator B. C. White, who is interested in the Montana irrigation scheme. Governor Stewart followed in his car. Lunch was had at Old Faithful Inn, and there Governor Stewart left the party, proceeding to Canyon Camp, where he spent a day or two as Howard Hays' guest.

The afternoon of the 27th was spent in inspecting the geyser basin, and a visit was also made to Lone Star Geyser. Very fortunately, a most spectacular display of geysers took place during the afternoon and early morning. The Secretaries saw the following geysers: Old Faithful, Giant, Giantess, Daisy, Grand, and Riverside. Although I had been in the geyser basin probably a hundred times previously, I had never seen the Giant play before, nor had I ever seen such a tremendous activity of large geysers. Old Faithful entertained the visitors with several powerful and beautiful explosions.

On the morning of the 28th we left for the Jackson Hole country, eating lunch beyond the dam at the foot of Jackson Lake. The day was clear and the view of the Tetons was magnificent. After luncheon we went down to the Buffalo Fork of the Snake River, and thence several miles into the Jackson Hole. About 3.30 we started back, just as a rainstorm began. The result was that we did not reach the Lake Hotel

until 8.00 P. M. A fine dinner was served at the hotel, however; and everybody felt so good after dinner that we proceeded to the Canyon Hotel for the night.

Senator Henderson returned with me from Cody, and I took him to West Yellowstone. He is tremendously interested in the park, and is coming back next year to take a horseback trip. He is opposed to the irrigation schemes, and can be depended upon to defend the park in Congress.

Other Distinguished Visitors.

Other distinguished visitors during the month included:

U. S. Senator Poindexter, who entered the park on July 30th.

Congressman Hatton Summers of Texas, who entered the park at West Yellowstone on July 31st, and is still here.

Governor John J. Cornwell of West Virginia, who was here from July 26th to 30th, inclusive.

Ex-Governor Henry D. Hatfield of West Virginia, who was with the Cornwell party.

Brigadier General Johnston, Commander of the 34th Division during the war. General Johnston arrived at the Lake Camp, on July 29th, after a packtrain trip around Lake Yellowstone. He is still here.

George Horace Lorimer and family, who arrived in Cody on July 7th, and left the park on the morning of July 13th. They entered the park via Cody and left via Gardiner.

Ex-U. S. Senator Willard Saulsbury of Delaware, who arrived on July 9th and left on the 13th.

Newcomb Carlton, President of the Western Union, who arrived on July 1st, and left on the night of the 5th. He made fishing trips in different sections of the park.

Emerson Hough and Mrs. Hough, who arrived on July 6th, and are still in the park.

Herbert L. Pratt, Vice President of the Standard Oil Company, and some members of the Rockefeller family, who arrived in early July. I did not come in contact with the party.

Admiral C. Mc. H. Winslow and Admiral Fletcher. They spent a large part of the month of July in the park with their families.

Mr. Edwin B. Caine, partner of U. S. Senator Henderson, who spent several days in the park about the middle of the month. Then he went to Glacier Park, and returned to Yellowstone.

Congressman F. C. Hicks, who left the park on July 1st, after spending more than a week here with his wife and daughter. I inclose copy of a letter received from Mr. Hicks. I have already sent you copy of a letter received from Congressman Mondell.

Mr. W. E. Lewis and Mr. Thomas Blodgett, who arrived with their families on Sunday August 1st. They completed their automobile tour of the park on the 5th and went into camp on Slough Creek. *Mr Harold White + family with them*

Mr. Chris Zabriskie, Mrs. Zabriskie, and Mr. Baker, who entered the park July 31st at West Yellowstone, made the trip in three days, and left at the same point on August 2nd. I provided them a private car, and spent some time with them, although I was not able to go all the way around the park with them.

General and Mrs. Liggett, accompanied by members of his staff, who entered the park at the north entrance on August 2nd, and went out by West Yellowstone on August 5th.

Mrs. F. S. Peabody and family, who were in the park from July 13th to 15th, entering via Gardiner and leaving via Cody.

Lieutenant General S. B. M. Young, U. S. A. Retired, motored from Washington, D. C., arriving at the west entrance on July 1st. He was also accompanied by his wife. They spent the greater part of the month as guests of Mr. H. W. Child, President of the Yellowstone Park Transportation Company.

Governor L. D. Frazier of North Dakota and family entered the park at Gardiner on July 27th, and made a camping trip of several days' duration through the park.

At the present time we have 85 boy scouts from Salt Lake City and Ogden in the park.

Other special visitors.

Mr. Chas. P. Punchard, Jr., Landscape Engineer, National Park Service, July 15th to 20th.

Mr. Robert S. Yard, Secretary National Parks Association, and family, since July 7th. Still in the park stopping at Permanent Camps.

Mr. A. L. Westgard, Field Secretary, American Automobile Association, July 5 and 6.

Massachusetts Forestry Association, 27 in party including Mr. William P. Wharton, in Gardiner July 2nd, out Cody July 8th. ✓

Mr. Ralph M. Shaw and Colonel T. M. Knox, U. S. Army, July 6th. ✓

Mr. Hal G. Evarts, writer for Saturday Evening Post, July 25th. ✓

Mr. F. Jay Haynes and family, July 15th.

Doctor Coggsell, Prof. Cobleigh, and Dr. Hayn, of the Montana State Board of Health, July 17th.

Mr. R. Y. Lyman, Cadastral Engineer, U. S. Geological Survey, of Helena, Montana, July 19th, en route with survey party to West Yellowstone, Montana, in connection with the proposed survey of the townsite. He had a short conference with Landscape Engineer Punchard, and will submit for Mr. Punchard's comments his plans for the development of the townsite.

*Work done
& party can
back Aug 17*

Rt. Rev. Wm. F. Fabor, Protestant Episcopal Bishop of Montana, visited the park officially July 10th and 11th. Bishop Fabor held services in the Fort Yellowstone Chapel on July 11th, confirming a class of eight members at the morning service.

Mr. John C. Hoyt, in charge Water Surface Investigations, U. S. Geological Survey, Washington, D. C., entered on July 30th via West Yellowstone.

Motion Pictures.

Mr. William L. Finley, of 651 East Madison Street,

Portland, Oregon, was in the park with his motion picture camera July 15th to the end of the month.

Mr. Jesse G. Sill, of 543 Vancouver Ave., Portland, Oregon, representing Adventure Scenic Corporation, under permit January 7, 1920, entered the park on July 19th.

Miscellaneous.

Entertainments: Motion pictures/shows were held in the Post Exchange Auditorium every Wednesday evening, and dances were held three times a week, mostly for the benefit of park employees, under the management of the Park Curio Shop.

Religious services were held every Sunday in the Fort Yellowstone Chapel, at 10.30 A. M. and 8 o'clock P. M. by Rev. J. F. Pritchard, of Emigrant, Montana. Bishop Faber of Montana officiated on July 11th, and other visiting ministers have assisted when present. Services have been very well attended, by both residents and tourists.

Copies of Office Circulars No. 20 to 25 inclusive, issued for information and guidance of employees, are enclosed for your information; also copies of press notes that have emanated from this office during July.

There are also inclosed copies of Notes on Flowers, Geology, Animals, and Birds, each on a separate sheet, prepared at the beginning of each month by Park Naturalist Skinner and posted at hotels, camps, public camps, and other public places for the information of the public. These have proven so popular that many people have asked for copies of them to take home.

X. RECEIPTS AND REMITTANCES.

The usual report of monies due, collected, and transmitted, together with money orders covering collections, will be submitted in a day or two.

Cordially yours,

HORACE M. ALBRIGHT

Superintendent.

The Director,
National Park Service,
Washington, D. C.

Inclosures:

Report for Month of July 1920.

Shop, signs. Junction & Keep Off.
" " " No Loafing

Placing Auto Camp Signs about Mammoth.
Place sign at Gardiner Arch.

Shop, Junction Sign
" Water & Keep Off Signs.

" Junction Sign
" Men & Women Toilet signs

Park, Placing signs about park
Ditto

Shop, signs. Auto Camp signs

Park " Park Cars Here "
Ditto Placing signs about park

Shop Signs, Divide signs

" " Camp Fire and Tack, sign

" " No Camping here, signs

" " Further Auto Camp signs

" " Men and Women Toilet signs

" " Misc. signs

A. C. Neumann

Aug 13 '20 cal

YELLOWSTONE PARK HOTEL CO.

HOTEL

Yellowstone Park, Wyo.

Building conditions F.P.
July 28/20.

Upper Basin -

Filing station for C.A. Hamilton
 completed excepting a few
 "knots" and tank work.

Gate - Port cochue, Hotel will
 be finished by Saturday
July 31 -

Store - Store Bldg. for C.A. Ham-
 iltou about half completed.

any on -

Store for Whitaker com-

YELLOWSTONE PARK HOTEL CO.

HOTEL*Yellowstone Park, Wyo.*

pleted, excepting porch
steps - waiting for Govt.
road promised -

Dormitory, Canyon Hotel -
plumbing work roughed
in - begin shingle work
Monday, Aug 2 -

Plaster work will be
done in August.

train road - Fueling station
completed excepting

Canyon Public Auto Camp
having 5,000 ft of 12 inch
transverse Iron pipe
and connecting
me to the Finch
in which supplies
Canyon Hotel
the drinking water
Clean Hydrants were
installed Ten in
Canyon Public Auto
camp and one
use of the
pump (located at
anger Station)

The entire water
system being
laid 12 inches under
the surface of
the ground, thus
preventing the
pipes from being
frozen, and
the water heated
by exposure
to the air and
sun
Self Closing Cocks
are arranged on

ake Junction to Sylvan
pass 16 Poles reset and
veral breaks repaired
anyon to Tower Falls
arly all poles reset and
he line thoroughly overhauled
d put in service

wer Falls - Soda Butte
ractically all poles reset
d the line changed
Jackson grade to prevent
ture trouble from high
water.

wer Falls to Mammoth,
portion 3 miles of this
re repaired

good deal of trouble has
n caused by lightning
rning out fuses during
ly

August 3, 1920.

REPORT ON INFORMATION SERVICE.

To: Chester A. Lindsley, Assistant Superintendent.
From: M. P. Skinner, Park Naturalist.

A total of 3136 inquirers visited the information Bureau during the month of July. Six hundred and ninety-five (695) of these visitors asked specifically for the museum. Virtually all of them were interested in the few specimens for which there is room in the office, and spent considerable time viewing them and asking questions.

There was an average of 101 inquirers a day, and our office proved so very small that we ~~felt~~^{felt} obliged to lessen our publicity somewhat until larger quarters can be provided.

A total of 375 pamphlets and 55 maps were sold.

A series of monthly bulletins on Flowers, Geology, Animals and Birds, was prepared and placed at all Ranger Stations, camps, hotels and stores, at the beginning of the season. A total of 31 sets of bulletins was so placed and they have attracted a great deal of interest and discussion. The posted bulletins started a demand for copies and we accordingly gave out 42 sets from the office.

July 31 1920

Monthly report of Electric Power
Production for month ended July, 31/1920.

Total generated.	16860 Kwh.
Consumed by Concessioners.	8230 " " "
Consumed by St. Lighting.	1069 " " "
Consumed by Government buildings shops and lines.	7571 " " "
Peak load for month	62 Kwh.

Geo S. Younger
Electrician

August 1, 1920.

REPORT on seasonal changes.

To: Chester A. Lindsley, Asst. Supt.

From: M.P. Skinner, Park Naturalist.

Botanical: Again I have to report that it has been a wonderful month for flowers, both in quantity and it quality of the blossoms. The grasses and forage crops, too, have had a fine growth.

Below the 6000 foot level, sunflowers began to bloom on the twentieth and goldenrod on the twenty-fourth. In the neighborhood of Mammoth, globe mallows appeared on the twenty-fifth; fireweed near Tower Falls on the twentieth and on the Park plateau a day later. Wild roses in bloom near Soda Butte on the seventh and four days later at Mammoth.

On the Park plateau, camass was in bloom in quantities on the meadows near Lake; columbines in bloom on the fourth, harebells on the sixth, wild onions on the sixteenth (altho they appeared two weeks earlier near Camp Roosevelt), yellow water lilies on the eleventh, and monkshood on the twenty-fifth. Service-berry bushes in bloom on the third on the Park plateau altho they disappeared at lower altitudes two weeks earlier. Strawberries were ripening in numbers at Upper Geyser Basin on the twenty-ninth and red raspberries near Mammoth on the thirty-first.

Birds: The pine siskins that were so numerous in June disappeared about July second when the supply of dandelion seeds gave out. The first indication of approaching fall migration came on the fifteenth when the blackbirds began to gather in flocks; the first bird to return from the north was the willet on the twentieth, followed by Wilson phalarope on the thirtieth.

Almost all our birds were nesting in July with the young of various species appearing daily. From the first to the fifteenth cliff swallows were busy

building their mud-retort nests. On the fifth, there were a hundred young pelicans and fifty California gulls on Molly Island with about as many more eggs to be hatched later. On the twenty-first, the ravens left their nest at Obsidian Cliff and the bluebirds began to gather in flocks. Unfortunately a severe hailstorm on the fifteenth destroyed most of the osprey nests at the Canyon of the Yellowstone altho the parents at the nest below Grand View succeeded in protecting their two offspring thru the storms of July 15th and those of the succeeding ten days.

Bird songs were heard for the last time: Lincoln sparrow on the fourth, chipping sparrow and meadowlark on the seventh, pink-sided junco on the thirteenth, robin on the sixteenth, and white-crown sparrow on the thirty-first.

A pair of trumpeter swan noted on West Thumb Bay on July fourth.

Animals: The antlers of the majority of the elk are not yet quite grown altho the mule deer have completed their growth. All antlers still in the "velvet". Practically all large animals except the bears have retired from the tourist routes because of heavy traffic but there are a dozen deer frequently seen near the Canyon and a half dozen small mountain sheep on Mt. Washburn. The condition of all animals continues good.

Probably July vies with January in its almost total absence of characteristic changes. What changes there were last month, were about normal.

August 3, 1920.

REPORT ON NATURAL PHENOMENA:

To: Chester A. Lindsley, Assistant Superintendent.
From: M. P. Skinner, Park Naturalist.

At Norris Geyser Basin the MONARCH Geyser and the BATH TUB have not been playing at all this season.

At the Lower Geyser Basin the FOUNTAIN Geyser has been playing quite regularly from its old crater at about a 4-hour interval, while the GREAT FOUNTAIN is playing on its old interval of from 8 to 12 hours.

At the Upper Geyser Basin the interval of OLD FAITHFUL Geyser is still being lessened. In June the interval between eruptions was 64 minutes, whereas during the last week of July the average interval was a trifle less than 63 minutes. The DAISY Geyser plays quite regularly from 80 to 85 minute intervals. During this year the GIANT is playing on an interval of about 7 or 8 days. The GRAND Geyser still continues to play at very frequent intervals, and practically every party of tourists sees it in action. The RIVERSIDE Geyser has lengthened its period a trifle until now the average interval is very nearly seven hours.

August 18, 1920.

Dear Sir:

I enclose herewith Cost of Park Report
for the month of July, 1920, for file with my
monthly report for that month which was forwarded
under date of August 10, 1920.

Cordially yours,

Horace M. Albright,
Superintendent.

Inclosure.

The Director,
National Park Service,
Department of the Interior,
Washington, D. C.

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